

## **Chapter 5: Mitigation**

This Chapter provides a summary of the proposed mitigation commitments associated with the Build Alternative, as identified throughout this EA.

### **5.1 LAND USE**

The primary mitigation for land use impacts is compensation for the acquisition of property, as discussed in **Section 5.3**. Coordination with the cities of Woods Cross, West Bountiful, and North Salt Lake has been an on-going process. Constraints were identified early in project scoping and measures that were able to avoid and minimize impacts to land uses important to these communities have been incorporated throughout the development of the Build Alternative through the use of a meandered alignment.

UDOT will continue to coordinate with local entities during final design and construction. Design preferences, such as aesthetic treatments within the median and shoulder areas, will be considered and incorporated to a reasonable extent (i.e., those that do not compromise safety). Additional local funding may be required to implement these aesthetic design preferences that are considered betterments.

### **5.2 FARMLANDS**

No mitigation is necessary.

### **5.3 COMMUNITY RESOURCES**

Property acquisition will be conducted in accordance with Title VI of the Civil Rights Act of 1964 and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended (the Uniform Act). Relocation services and benefits will be administered through UDOT's Relocation Assistance Program. Relocation resources are available to all relocatees without discrimination. UDOT will provide comparable replacement housing that is decent, safe, and sanitary and within the financial means of the displacees. Due to the limited number of properties below the average value of the displacements, UDOT may provide the necessary housing in a number of ways, such as providing a replacement housing payment in excess of the maximum \$5,250 or \$22,500 statutory limits or purchasing an existing comparable dwelling in exchange for the displaced dwelling.

The following commitments will also be incorporated into the project to minimize community impacts and related concerns that have been expressed by community members:

- Landscaping and median treatments will be considered during final design in coordination with Woods Cross and West Bountiful;
- Sidewalks and paved shoulders will be incorporated in the design to provide additional bicycle and pedestrian circulation to the community;
- UDOT standards for traffic control management will be implemented to coordinate the efficiency and safety of construction activities throughout the duration of the construction project;
- UDOT will coordinate the timing of construction with the timing of other transportation projects in the area (i.e. Legacy Parkway and Commuter Rail) to minimize the level of disruption and inconvenience to the community; and
- UDOT will consider signalization of intersections along the corridor that meet signal warrants. Signalized intersections will be designed to accommodate the special needs of elderly and disabled individuals.

## **5.4 ECONOMICS**

Mitigation measures to offset adverse economic impacts include those identified in **Section 5.3**, as well as the following additional commitments:

- Access to businesses will be maintained throughout construction;
- Where amenable to the property owner and in accordance with UDOT policy, consolidation of driveway accesses will be considered in the design phase; and
- UDOT's business guide, *Partners for the Road Ahead*, was made available to businesses at the public hearing. This packet of materials is available to assist businesses in proactively planning for and successfully coping with construction (also available online at [www.udot.utah.gov/business-guide](http://www.udot.utah.gov/business-guide)).

## **5.5 TRAVEL PATTERNS AND ACCESSIBILITY**

No mitigation is necessary.

## 5.6 AIR QUALITY

Best Management Practice (BMP) measures will be implemented, and the contractor will comply with the provisions of state laws governing the maintenance and operations of construction equipment and regulations governing fugitive dust. The emissions that are due to the construction operations for this project will be mitigated by implementation of the following BMP measures. Specific project level measures suggested during construction operations include:

- **Fugitive Dust Emission Control Plan:** During construction of the project, the contractor would maintain a fugitive dust control plan under the State or Utah Fugitive Emissions Program Rule R307-205-5, effective December 1, 2006. Strategies to control fugitive dust under R307-205-5 may include wetting or watering, chemical stabilization, planting vegetative cover, providing synthetic cover, wind breaks, or other equivalent methods or techniques approved by the DAQ.
- **Other Emissions Controls:** The contractor would shut off construction equipment when not in direct use to reduce idling, adhere to burning restrictions, control local source plant operations (e.g., asphalt, cement, and crushing) restrictions, and minimize hauling.

## 5.7 NOISE

In accordance with UDOT Traffic Noise Abatement Policy 08A2-1 (revised March 8, 2004) and Utah Administrative Code Rule R930-3, Highway Noise Abatement, there are no practical (reasonable and/or feasible) noise abatement measures which will eliminate the traffic noise impact and noise walls are not proposed. **Appendix E** (specifically, Section 11 of the Noise Analysis) provides further detail regarding each specific abatement measure considered.

Generally, the control, timing, and phasing of construction noise will be governed by UDOT construction specifications. The project falls within a “noise sensitive zone” (the land enclosed within a 1,500-foot radius circle of any receptor) as defined by UDOT Construction Standard Specification Section 01355 (Environmental Protection) Part 1.8 Noise and Vibration Control. This specification states that the contractor will be required to prohibit construction activity in a noise sensitive zone if the sound level within 10 feet of the nearest receptor exceeds 95 dBA in daytime (from 7 am to 9 pm) or 55 dBA in nighttime (from 9 pm to 7 am), as well as Sundays and State Holidays.

For non-planned or non-permitted undeveloped land, it is suggested that commercial development be proposed in future land use zoning to create a buffer zone between SR-68 and sensitive areas and that proposed residential subdivisions be placed farther from the road to avoid potential sound level matters. In an effort to help create a buffer zone for future planning purposes of undeveloped land, the worst-case 65 and 70 dBA contours for the Build Alternative were developed, as discussed in **Appendix E** (specifically, Section 11 and Table 4 of the Noise Analysis).

## **5.8 WATER RESOURCES**

Mitigation for impacts to water resources is addressed through several required permits and approvals. **Table 3.8-6** provides a summary of the permits and approvals that will be obtained prior to implementation of the project. Mitigation requirements and other conditions associated with these permits and approvals will be complied with.

The permitting process together with BMPs, as required under Section 402 of the CWA, provide a coordinated and comprehensive effort to mitigate for short-term (construction-related) and long-term impacts on receiving waters. BMPs are “schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce the pollution of waters of the United States” (40 CFR 122.2). They include, but are not limited to, “treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage” (40 CFR 122.2). An erosion control plan including the use of BMPs to control construction-related erosion and sedimentation impacts will be developed and incorporated in the design plans. This plan will be reviewed by agencies as part of the permitting requirements and included in the construction contract documents. The Spill Prevention, Control, and Countermeasure (SPCC) plan will ensure that the risk of contamination to the site is minimized. During construction, the effectiveness of BMPs will be monitored. Public drinking water well owners would be notified prior to construction taking place within source protection zones.

## **5.9 FLOODPLAINS**

The widened roadway would be designed so that it would not increase the base flood elevation of the floodplain associated with Mill Creek. A Flood Control Permit will be obtained from Davis County for work within 100 feet of Mill Creek and the A1 or A1-A Drain.

## **5.10 WETLANDS**

An alignment shift has been incorporated into the Build Alternative to minimize impacts to Wetland Area 1. Further avoidance is not possible because of the proximity of this wetland area to the intersection with 2600 South and Redwood Road. A Section 404 Permit will be obtained prior to discharging dredged or fill materials into waters of the United States, including wetlands. Because permanent impacts to wetlands are only 0.06 acres, creation of a wetland area is not expected to be economically feasible. Mitigation opportunities for the project impacts could be developed within one of the following areas:

- Additional mitigation efforts within the Legacy Nature Preserve.
- Preservation / mitigation in the Farmington Bay area.
- Stream restoration or preservation on one of the local watercourses.

Project mitigation efforts will be coordinated and approved by the Army Corps of Engineers. Mitigation requirements and other conditions outlined in the Section 404 Permit will be complied with. Wetlands temporarily impacted by equipment or other construction activities will be restored following construction.

## **5.11 VEGETATION AND WILDLIFE**

Vegetation temporarily disturbed by the project will be re-established in accordance with UDOT Standard Specification Section 2922 and CSS principles coordinated through the CSC, as discussed in **Sections 5.16** and **2.4.2**. No further mitigation is planned for the minimal impacts to wildlife.

## **5.12 THREATENED, ENDANGERED, AND OTHER SENSITIVE SPECIES**

No mitigation is necessary.

## **5.13 INVASIVE SPECIES**

UDOT's Special Provision Section 0294S: Invasive Weed Control identifies BMPs that will be used to prevent invasions of noxious weeds on disturbed sites along the ROW. UDOT will specify on construction contract documents that seed mixes used for landscaping and/or erosion control must be free of noxious weeds and other invasive plant species.

In compliance with the Executive Order 13112, the Utah Noxious Weed Act, and subsequent guidance from FHWA, the landscaping and erosion control included in the project will not use species listed as noxious weeds. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.

## **5.14 PALEONTOLOGICAL, ARCHAEOLOGICAL, AND HISTORIC RESOURCES**

Mitigation will be conducted in accordance with the MOA (included in **Appendix A**). Pursuant to 36 CFR 800.6, measures that minimize the effects of the project on the historic qualities of the adversely affected property located at 772 West 500 South, West Bountiful, have been developed in consultation with SHPO. UDOT has also solicited the views of interested parties. Proposed mitigation for this property includes:

- Documentation of the historic property to the Utah State Intensive Level Survey (ILS) Standards in advance of construction activity; and
- Off-site project consisting of multiple property context/submission and nominations for the eligible carriage houses in West Bountiful.

The MOA also includes stipulations for planning, discovery, and monitoring; review of implementation and measures for dispute resolution; and provisions specific to the Utah Native American Graves Protection & Repatriation Act (UNAGPRA).

UDOT Standard 01355 Environmental Protection Part 1.10 - Discovery of Historic, Archaeological, and Paleontological Resources, applies to this project and stipulates instructions to the contractor for the protection of any archaeological, historical, or paleontological resource discovered in the course of construction. Should a discovery occur, UDOT would consult with SHPO and relevant Consulting Parties toward developing and implementing an appropriate treatment plan prior to resuming construction.

## **5.15 HAZARDOUS MATERIALS OR WASTE**

Specific mitigation plans will be developed and implemented to contain hazardous materials encountered during construction and to minimize remaining contamination following construction. If warranted, further mitigation will be developed following additional investigation of those sites. UDOT Specification 08A2-3 includes provisions in the event that additional hazardous waste sites are discovered during construction.

Should workers encounter contamination during construction in these or any other locations, they should clear the area and contact the DERR immediately. Other mitigation measures include the following:

- The contractor will be required to provide written notification to the DAQ at least 10 working days before the demolition of any structure, including buildings with no asbestos. DAQ indicates that Regulated Asbestos-Containing Materials (RACM), which include friable ACMs and previously non-friable ACMs that may become friable as a result of demolition activities, must be identified by a certified asbestos inspector and removed by a certified asbestos abatement contractor prior to demolition. If the amount of asbestos to be removed is greater than the National Emission Standard for Hazardous Air Pollutants (NESHAP) size, then notification and payment of the appropriate fee is due 10 working days prior to the asbestos removal project. The NESHAP size is defined as 260 linear feet of asbestos from pipes, 160 square feet, or 35 cubic feet from other facility components. Written notification is due at least one working day before the less-than-NESHAP-size amount of RACM is disturbed on any renovation project. No fee is charged for less-than-NESHAP-size renovation projects.
- During demolition activities, the contractor will ensure that workers follow Occupational Safety and Health Administration (OSHA) regulations regarding potential exposure to airborne lead and asbestos. In addition, representative samples of any construction waste derived from commercial structures should be tested by the Toxic Characteristic Leaching Procedure (TCLP) to determine if the waste is hazardous. According to the EPA, construction debris derived from residential structures constructed prior to 1978 is exempt from lead characterization requirements. However, individual landfills often require lead characterization (TCLP analysis) prior to acceptance of construction debris derived from residential structures constructed prior to 1978. Pre-demolition coordination with the landfill responsible for accepting the demolition wastes derived from this project is recommended.
- The contractor will properly remove and dispose of asbestos and lead contaminated materials according to all federal, state, and local regulations. The contractor will also be advised of the potential of encountering petroleum hydrocarbon contamination.

- The contractor will monitor and properly handle and dispose of PCE, TCE, petroleum or other contaminant-impacted soils during construction. At a minimum, the following sites require monitoring:
  - 1 – 500 South PCE Plume site, inclusive of any property along 500 South between 500 West and 950 West;
  - 6 – Sky Park, 1800 South 1800 West;
  - 7 – Car Wash, 325 South 500 West;
  - 8 – Woods Cross City Shops, 1490 South 1800 West;
  - 9 – Caribou Four Corners Inc., 1431 South 1800 West; and
  - 10 – Spreader Specialists, 805 North Redwood Road.
- Should full property acquisition or the disposal of surplus property from the following sites be necessary, the UDOT Environmental Division will be consulted to determine the extent of further investigation applicable to each site. When permission to conduct this investigation can be obtained from the existing property owner, UDOT should conduct this investigation prior to acquisition of the property:
  - 1 – 500 South PCE Plume site, including any property along 500 South between 500 West and 950 West;
  - 6 – Sky Park, 1800 South 1800 West;
  - 8 – Woods Cross City Shops, 1490 South 1800 West;
  - 9 – Caribou Four Corners Inc., 1431 South 1800 West;
  - 12 – AC Texaco (former Sunmart #945), 560 West 500 South;
  - 14 – Companion Systems, Inc., 2455 South Redwood Road;
  - 16 – Herm Hughes & Sons, Inc., 900 North Redwood Road;
  - 19 – Cobb Diesel & Gear Repair, 1057 West 500 South;
  - 20 – Utah Auto Auction, 1650 West 500 South;
  - 21 – Black Hills Trucking, 945 North Redwood Road;
  - 22 – BP Pipelines N America, Inc., Northwest corner of 500 South and Redwood Road;



- 26 – Mineral Fertilizer, 350 Redwood Road;
- 38 – Clem’s Close Out Center, 1881 South Redwood Road; and
- 39 – Skypark Airport, Inc., 1887 South 1800 West.

## **5.16 VISUAL QUALITY**

UDOT’s Context Sensitive Solution (CSS) principles have been examined. Measures that have been incorporated into the Build Alternative to reduce visual impact include: meandering the alignment, matching the existing grade as much as possible, and providing consistency with roadway design elements. UDOT will continue to coordinate with local entities during final design and construction. Design preferences, such as aesthetic treatments within the median and shoulder areas, will be considered and incorporated to a reasonable extent (e.g., those that do not compromise safety). Additional local funding may be required to implement design preferences that are considered betterments.

## **5.17 SECONDARY IMPACTS**

No further mitigation is necessary.

## **5.18 CUMULATIVE EFFECTS**

No further mitigation is necessary.

## **5.19 SECTION 4(F)**

Mitigation for Section 4(f) impacts for the historic property located at 772 West 500 South is addressed in **Section 5.14**.

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